



**ENTERGY**

Entergy Operations, Inc.  
River Bend Station  
5485 U.S. Highway 61  
PO. Box 220  
St. Francisville, LA 70775  
(504) 381-4200  
FAX (504) 381-4105

MICHAEL B. SELLMAN  
General Manager  
Plant Operations

August 2, 1994

U.S. Nuclear Regulatory Commission  
Document Control Desk  
M/S P1-37  
Washington, D.C. 20555

Subject: River Bend Station - Unit 1  
Docket No. 50-458  
License No. NPF-47  
Interim Relief Request, IRR-03  
File Nos.: G9.5, 224.600

RBG-40773

Gentlemen:

In accordance with 10CFR50.55a, Entergy Operations, Inc. (EOI) hereby submits Interim Relief Request (IRR) 03 for River Bend Station (See Attachment). This one-time temporary relief request would extend the test frequency and postpone testing required by ASME Section XI, IWV-3521 and IWV-3522 for an inboard drywell isolation check valve.

As stated in the recent cover letter accompanying IRR-02 (RBG-40771, dated August 1, 1994), the River Bend Station (RBS) Inservice Testing (IST) program is undergoing a systematic review in accordance with the long term performance improvement plan (LTPIP), submitted to the NRC on March 28, 1994, (RBG-40428). This program includes, in part, an IST Improvement Plan to upgrade the technical adequacy and functionality of the IST program. During this review it was discovered that a check valve in addition to the four discussed in IRR-02 had not been tested in accordance with ASME Code requirements since plant startup.

ASME Section XI IWV-3521, "Test Frequency," states that check valves shall be exercised at least once every three months, except as provided by IWV-3522. IWV-3522, "Exercising Procedure," states that check valves shall be exercised to the position required to fulfill their function unless such operation is not practical during plant operation.

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Drywell isolation check valve 1CCP\*V119 is located in the 6-inch reactor plant component cooling water supply line to the drywell. This swing check valve is designed to close with even a slight positive pressure to isolate flow from the drywell to containment. It supplies cooling water to the equipment drain sump cooler and reactor recirculation pumps' motor winding coolers and pump and motor bearing coolers. These pumps and coolers are located inside the drywell. The check valve is downstream of the drywell penetration. Upstream of the penetration is a motor operated automatic isolation valve (1CCP\*MOV142). This motor operated valve isolates on high drywell pressure or low reactor level so that in the event of a loss of coolant accident this valve would isolate. This motor operated valve was full-stroke tested during the recent refueling outage. The piping forms a closed loop and is not open to the drywell or containment environment. The piping between the check valve and the motor operated valve is ASME Class 2 with all other piping designed to ANSI B31.1 requirements. The piping for the line being isolated by the check valve and motor operated valve within the drywell and containment is seismically designed, analyzed and supported. (See RBS USAR Figure 9.2-2a.)

Valve Relief Request (VRR-2), which was submitted and approved with Revision 6 of the RBS Pump and Valve Inservice Testing Program Plan, allowed the drywell bypass leakage test required by Technical Specification 4.6.2.2 to be used to verify the closure of the drywell isolation check valves. Due to the system layout described above, i.e., the check valve is located in a closed loop cooling water system not open to the drywell atmosphere, the drywell bypass leakage test cannot be credited for verifying the closure of the check valve.

Upon discovery of this condition, Technical Specification 4.0.3 was entered at 1545 on August 1, 1994. This Technical Specification allows 24 hours to address the surveillance requirements. At the end of the 24 hours, the action requirements for Technical Specification 3.6.4, "Containment and Drywell Isolation Valves," must be entered. This entails beginning a forced shutdown within 4 hours.

The relief from ASME Section XI IWV-3521 and IWV-3522 requested in IRR-03 would extend the test frequency and

postpone required testing for the check valve until the next refueling outage, currently scheduled to begin in September 1995. This temporary relief is justified in accordance with 10CFR50.55a(a)(3)(ii) because disassembling this valve would require a forced shutdown of RBS that would result in a hardship and unusual difficulties without a compensating increase in the level of quality and safety. Approving this request averts a forced shutdown for a condition which does not constitute a reduction in the overall protection of the public health and safety.

An engineering evaluation of this condition determined that the drywell is capable of performing its safety function. In no credible combination of events would the condition of check valve 1CCP\*V119 result in a degradation of drywell/containment integrity. To challenge drywell/containment integrity, all of the following must occur during a small break loss of coolant accident:

1. Failure of a motor operated automatic isolation valve to close, and
2. A break in the line downstream of the drywell isolation check valve inside the drywell, and
3. A break in the line upstream of the motor operated automatic isolation valve, and
4. Failure of the drywell isolation check valve to close.

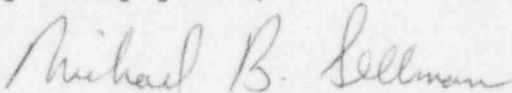
Any one of the above features would maintain drywell integrity during the event and prevent drywell bypass leakage. Calculations show that in the unlikely event that this combination of events were to occur, the overall contribution to post-accident drywell bypass leakage area would be approximately 0.164 square foot, well below the criterion stated in the RBS USAR of 1.15 square feet for a small steam line break. Based on the above, EOI concludes that the subject condition does not constitute a reduction in the overall protection of the public health and safety.

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EOI asks for prompt action on the part of the NRC in reviewing IRR-03 due to the 24 hour limit imposed by Technical Specification 4.0.3 and the 4 hour limit subsequently imposed by Technical Specification 3.6.4. Approval of IRR-03 is requested by 1945 hours August 2, 1994, to eliminate the burden of a forced shutdown. Your cooperation regarding EOI's request is greatly appreciated.

If you have further questions regarding this request, or require additional information, please contact me or my staff.

Very truly yours,



MBS\jcm  
attachment

cc: U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

NRC Sr. Resident Inspector  
P.O. Box 1051  
St. Francisville, LA 70775

Mr. Robert Schaaf  
U.S. Nuclear Regulatory Commission  
M/S O 13-H-3  
Washington, DC 20555

Louisiana Department of Environmental Quality  
Radiation Protection Division  
P.O. Box 82135  
Baton Rouge, LA 70884-2135  
ATTN: Administrator

## ATTACHMENT

Interim Relief Request No. IRR-03

<u>SYSTEM</u>	Reactor Plant Closed Cooling Water
<u>CODE CLASS</u>	2
<u>CATEGORY</u>	C
<u>COMPONENTS</u>	1CCP*V119
<u>FUNCTION</u>	<p>The reactor plant closed cooling water drywell isolation check valve is a 6-inch swing check valve and is the inboard containment drywell isolation valve in series with a motor operated outboard isolation valve. The valve has a process function in the open direction to allow normal cooling water flow to the reactor coolant recirculation pump and motor bearing.</p> <p>The valve has an active close safety function to isolate the drywell in the event of a high energy line break. Isolation of the drywell ensures that the majority of high energy fluid exhausted from the break is condensed in the suppression pool. This condensing action precludes overpressurization of the primary containment. The valve is provided to prevent a gross diversion of flow from the drywell to the primary containment. The valve has no specific leakage requirement. Closure of either valve associated with the penetration is sufficient to meet the system safety function requirements.</p>
<u>TEST</u>	IWV-3521, "Test Frequency,"
<u>REQUIREMENT:</u>	<p>"Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522."</p> <p>IWV-3522, "Exercising Procedure,"</p> <p>"Check valves shall be exercised to the position required to fulfill their function unless such operation is not practical during plant operation..."</p>

**BASIS FOR  
RELIEF**

Quarterly reverse flow testing of this check valve would isolate cooling water flow to the reactor coolant recirculation pump and motor bearings. Interruption of cooling water flow to the reactor coolant recirculation pump and motor bearings could result in extensive damage to the pump and/or motor bearings. Additionally, the valve cannot be tested quarterly as the drywell is not accessible during power operation.

Relief Request VRR-2, submitted and approved with Revision 6 of the River Bend Station Pump and Valve Inservice Testing Program Plan, allowed the drywell bypass leakage test required by Technical Specification 4.6.2.2 to be used to verify the closure of the drywell isolation check valves.

A recent review of testing activities for these valves has indicated that use of the drywell bypass leakage test to verify closure for the subject valve may not be adequate. Due to the fact that the valve is located in a closed loop cooling water system and is not open to the drywell atmosphere, the valve is not tested during the drywell bypass test.

An engineering evaluation has been performed which determined that in no credible combination of events would the non-tested condition of check valve 1CCP\*V119 result in a degradation of drywell/containment integrity.

The outboard motor operated drywell isolation valve (1CCP\*MOV142) is an automatic drywell isolation valve. It has been stroke time tested in the closed direction and confirmed operable.

**ALTERNATE  
TESTING:**

No alternate testing is proposed. The valve's close safety function will be verified at the next refueling outage by either disassembly or reverse flow test.